SECTION 301 CLASS I BASE COURSE

MATE	RIAL	REF. TESTED BY	PURP.	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT.	DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
AGGREGATE BASES (DEDICATED STOCKPILE)	Recycled PC Concrete	301.02 1003.03 Mat. Lab	Prelim. Source Approval	Dist. Lab S 101 & S 801	1/Stockpile*	12 full sample sacks			5 weeks	*See S 801 for maximum stockpile quantities. Raw material stockpiles shall be approved by Dist. Lab Engr. prior to crushing.
		301.07 Contractor	Quality Control	Contractor S 101 & S 801	*					*Must be controlled so that materials placed in stockpile will conform to specifications when tested by the Department.
		301.02 1003.03 Dist. Lab	Design*	Proj. Engr. S 101	1/source	6 full sample sacks			4 days	Material must be source approved. *For moisture-density relationships.
		301.02 1003.03 Dist. Lab	Accept.	Proj. Engr. S 101	1/1000 yd ³	1 full sample sack			4 days	Material must be source approved.
	Sand-Clay- Gravel	301.07 Contractor	Quality Control	Contractor S 101 or S 401	*					*Must be controlled so that materials placed in stockpile will conform to specifications when tested by the Department.
		301.02 1003.03 Dist. Lab	Accept.	Proj. Engr. S 101 or S 401	1/source	6 full sample sacks			10 days	For moisture-density relationships.
		301.02 1003.03 Dist. Lab	Design	Proj. Engr. S 101 or S 401	1/1000 yd ³	1 full sample sack			5 days	Must be accepted prior to mixing with cement. If individual components are to be mixed in the pugmill, approval procedure shall be approved by the Materials Engineer Administrator.

SECTION 301 CLASS I BASE COURSE (Cont'd)

MATERIAL		REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
AGGREGATE BASES (DEDICATED STOCKPILE)	Stone or Crushed Slag	301.07 Contractor	Quality Control	METHOD Contractor S 101	*	CONTAINER 	DISTR.			*Must be controlled so that materials placed in stockpile will conform to specifications when tested by the Department.
(Cont'd)		301.02 1003.03 Dist. Lab	Design*	Proj. Engr. S 101	1/source	6 full sample sacks			4 days	(QPL 2) *For moisture-density relationships.
		301.02 1003.03 Dist. Lab	Accept.	Proj. Engr. S 101	1/1000yd ³	1 full sample sack			4 days	
		1003.03 Dist. Lab	IA	Dist. Lab S 101 or S 401		SEE	INDEPEN	IDENT ASSUR	ANCE PROGR	AM S 701.
ASPHALTIC CONCRETE BASES		FC	OR ALL REL	ATED MATER	IALS, SEE SE	CTION 502 OF THIS	S MANUA	L. SEE INDEP	ENDENT ASSU	JRANCE PROGRAMS S 701.
ASPHALTIC MATERIAL	Curing Membrane					SEE SECTION 5	06 OF THI	S MANUAL.		
	Prime Coat					SEE SECTION 5	05 OF THI	S MANUAL.		

SECTION 301 CLASS I BASE COURSE (Cont'd)

MATER		REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING	DEMARKS
MATER	RIAL	TESTED							TIME	REMARKS
		BY		METHOD		CONTAINER	DISTR.			
CEMENT (HYDRAULIC)	Types I, II & IP	1001.01 Mat. Lab	Prelim. Source Approval	Mfr. S 102	1/month/type	1 gal friction top can or acceptable moisture proof container				(QPL 7) Composited and blended from daily plant samples and submitted for quality control verification.
		301.02 1001.01 Proj. Engr.	Accept.		1/shipment		CD 1 & 7			(QPL 7)
		301.02 1001.01 Mat. Lab	Verif.	Proj. Engr. S 102	1/project/ source	1 gal friction top can			21 days	(QPL 7)
PORTLAND CEMENT CONCRETE BASES		301.01 301.16	Design/ Quality Control/ Accept			SEE SI	ECTION 70	06 & 901 OF TH	HIS MANUAL.	
MIXTURE WITH CEMENT AT	Percent Cement	301.07 Contractor	Quality Control	Contractor TR 436	2/half day*					*In addition to start-up of plant each day and after each shut down.
CENTRAL MIX PLANT		301.16 Proj. Engr.	Accept.	Proj. Engr. TR 436	1/half day				1 hr	
	Gradation	301.07 Contractor	Quality Control	Contractor S 101	1/half day*	1 full sample sack				*When gradation is a requirement of specifications.
		301.16 Proj. Engr.	Accept.	Proj. Engr. S 101	1/day*	1 full sample sack			4 hr.	*Gradation will be run when questionable or individual components of SCG are mixed in a pugmill.
	Moisture Content	301.07 Contractor	Quality Control	Contractor S 101 S 401	1/half day*					*In addition to start-up of plant each day and after each shut down.
	Proportions	301.07 Contractor	Quality Control	Contractor TR 436	*					*Shall be monitored continuously.
		301.16 Proj. Engr.	Accept.	Contractor TR 436	1/half day				1 hr.	
	Pulverization	301.07 Contractor	Quality Control	Contractor S 401	1/half day					
		301.16 Proj. Engr.	Accept.	Proj. Engr. S 401	1/half day				1/2 hr.	
BASE MATERIAL ON ROADWAY	Density	301.11 Contractor	Quality Control	Contractor TR 401	*					*Shall test sufficient to ensure specifications will be met.
		301.16 Proj. Engr.	Accept.	Proj. Engr. TR 401	1/1000 lin ft/ 2 lane rdwy or 1/2000 lin ft/shoulder				1/2 hr.	
		301.16 Dist. Lab	IA	Dist. Lab TR 401		SEE	INDEPEN	DENT ASSUR	ANCE PROGR	AM S 701.

SECTION 301 CLASS I BASE COURSE (Cont'd)

MATER	ΡΙΔΙ	REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING	REMARKS
MATE	VIAL	TESTED BY		METHOD		CONTAINER	DISTR.		TIME	KLWAKKO
BASE MATERIAL ON ROADWAY	Cross Slope & Grade	301.11 Contractor	Quality Control	Contractor	*					*Shall take measurements sufficient to ensure specifications are met.
(Cont'd)		301.16 Proj. Engr.	Accept.	Proj. Engr.	1/half day				1/4 hr.	Use an approved 10-ft metal static straightedge or other approved device.
	Moisture Content (For Soil Cement	301.11 Contractor	Quality Control	Contractor TR 403	*					*Shall test sufficient to ensure specifications are met.
	or Cement Stabilized Mixtures)	301.16 Proj. Engr.	Accept.	Proj. Engr. S 101 S 401	1/half day				1 hr.	(TR 403)
	Thickness & Width	301.11 Contractor	Quality Control	Contractor	*					*Shall take measurements sufficient to ensure specifications are met.
		301.16 Proj. Engr.	Verif.	Proj. Engr. TR 602	1/half day				1/4 hr.	Proj. Engr. shall notify the Dist. Lab when section is complete.
		301.16 Dist. Lab	Accept.	Dist. Lab TR 602	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder*			300 lin ft per location	3 days	*See DOTD TR 602. For small quantity, Proj. Engr. Documents in field book.
SOIL (RAW)	Dedicated Stockpile	301.11 Contractor	Quality Control	Contractor S 401						Control uniformity of moisture and soil type while stockpile is being built.
		301.02 301.05 Dist. Lab	Design*/ Accept.	Proj. Engr. S 401	1/1000 yd ³	6 full sample sacks**				*For cement content & moisture- density relationships. **When soils are to be blended, each component must meet specifications before blending. Design and final acceptance will be conducted on the blend.
		301.02 301.05 Dist. Lab	IA	Dist. Lab S 401		SEE	INDEPE	NDENT ASSUR	ANCE PROGRA	AM S 701.
WATER		1018.01 Mat. Lab	Accept.	Proj. Engr. S 303	1/source*	1 qt plastic bottle			21 days	*Drinkable water need not be sampled.

SECTION 302 CLASS II BASE COURSE

MATE	RIAL	REF. TESTED	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
		BY		METHOD		CONTAINER	DISTR.			
NOTE: WHEN A	CLASS II BASE C	OURSE IS PRO	DUCED BY	ENTRAL PLAN	T MIXING, USE	THE SAMPLING SCH	EDULES I	N SECTION 301	OF THIS MANUA	ÅL.
AGGREGATE BASES	Recycled PC Concrete	302.02 1003.03 Mat. Lab	Prelim. Source Approval	Dist. Lab S 801	1/stockpile*	6 full sample sacks			21 days	*See S 801 for maximum stockpile quantities. Raw material stockpiles shall be approved by Dist. Lab Engineer prior to crushing.
		301.01 302.02 302.08 Contractor	Quality Control	Contractor S 101	*					*Must test sufficient to ensure materials being delivered meet specification requirements.
		302.02 Dist. Lab	Design*	Proj. Engr. S 101	1/source	6 full sample sacks			4 days	Material must be source approved. *For moisture-density relationships.
		302.02 Dist. Lab	Accept.	Dist. Lab S 101	1/1000 yd ³	1 full sample sack		100 yd ³	4 days	Material must be source approved.
	Sand-Clay- Gravel	302.01 302.02 302.08 Contractor	Quality Control	Contractor S 101 or S 401	*					*Must test sufficient to ensure materials being delivered meet specification requirements.
		302.02 Dist. Lab	Design*	Proj. Engr. S 101	1/source	6 full sample sacks			10 days	*For moisture-density relationships.
		302.02 Dist. Lab	Accept.	Proj. Engr. S 101	1/1000 lin ft/ 2-lane rdwy or 1/ 2000 lin ft/ shoulder*	1 full sample sack		200 lin ft or 100 yd ³	5 days	*For stockpiles, ramps, turnouts, etc. minimum frequency shall be 1 per 1000 yd ³ .

SECTION 302 CLASS II BASE COURSE (cont'd)

MATER	RIAL	REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
		TESTED BY		METHOD		CONTAINER	DISTR.		IIME	
AGGREGATE BASES (cont'd)	Stone or Crushed Slag	302.01 302.02 302.08 Contractor	Quality Control	Contractor S 101	*					*Must test sufficient to ensure materials being delivered meet specification requirements.
		302.02 Dist. Lab	Design*	Proj. Engr. S 101	1/source	6 full sample sacks			4 days	(QPL 2) *For moisture-density relationships.
		302.02 Dist. Lab	IA	Dist. Lab S 101		SEE	INDEPEN	NDENT ASSUR	ANCE PROGR	AM S 701.
ASPHALTIC CONCRETE BASES			FC	R ALL MATER	RIALS, SEE 502	OF THIS MANUA	L. SEE IN	IDEPENDENT /	ASSURANCE F	PROGRAM S 701.
ASPHALTIC	Curing Membrane					SEE SECTION 5				
	Prime Coat					SEE SECTION 5		S MANUAL.		
CEMENT (Hydraulic)	Types I, II & IP	302.02 1001.01 Mat. Lab	Prelim. Source Approval	Mfr. AASHTO T 127	1/month/type	1 gal friction top can or acceptable moisture proof container				(QPL 7) Composited and blended from daily plant samples and submitted for quality control verification.
		302.02 1001.01	Accept.		1/shipment		CD 1 & 7			(QPL 7)
		302.02 1001.01 Mat. Lab	Verif.	Proj. Engr. S 101	1/project/ source	1 gal friction top can			21 days	(QPL 7)
CONCRETE, PORTLAND CEMENT, BASE		302.01 302.12	Design/ Quality Control/ Accept.			SEE	SECTION	N 901 OF THIS	MANUAL.	
BASE MATERIAL ON ROADWAY	Cement Spread Rate (For soil cement or	302.01 302.08 Contractor	Quality Control	Contractor TR 436	each transport*					*The contractor shall determine the length of spread prior to mixing. Use an approved sampling device.
	cement treated bases only)	302.12 Proj. Engr.	Accept.	Proj. Engr. TR 436	1/day*				1/2 hr.	*The Proj. Engr. will verify the length of spread prior to mixing. At the discretion of the Proj. Engr. additional testing shall be performed when cement content changes. Use an approved sampling device.
	Cross Slope & Grade	301.01 302.08 Contractor	Quality Control	Contractor	*					*Shall check sufficient to ensure specifications are met.
		302.12(d) Proj. Engr.	Accept.	Proj. Engr.	1/half day				1/4 hr.	Use an approved 10 ft metal static straightedge or other approved device.

SECTION 302 CLASS II BASE COURSE (cont'd)

MATER	DIAL	REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING	REMARKS
MATER	KIAL	TESTED BY		METHOD		CONTAINER	DISTR.		TIME	REMARKS
BASE MATERIAL ON ROADWAY	Density	302.01 302.08 Contractor	Quality Control	Contractor TR 401	*					*Shall test sufficient to ensure specifications are met.
(Cont'd)		302.12 Proj. Engr.	Accept.	Proj. Engr. TR 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder				1/2 hr.	
		302.12 Dist. Lab	IA	Dist. Lab TR 401		SEE	INDEPEN	NDENT ASSUR	ANCE PROGR	AM S 701.
	Moisture Content (For Soil Cement	302.01 302.08 Contractor	Quality Control	Contractor S 101 or S 401	*					*Shall test sufficient to ensure specifications are met.
	or treated Sand-Clay- Gravel only)	302.05 302.12 Proj. Engr.	Accept.	Proj. Engr. S 101 or S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	1 gal friction top can*			1 hr.	*May be obtained by M.C. % determined during application of TR 415 B, if available on in-place moisture at the time of compaction (TR 403).
	Pulverization (For soil- cement only)	302.01 302.08 Contractor	Quality Control	Contractor S 401	*					*Soil cement shall be tested sufficiently to ensure specifications are met.
	,	302.05 302.12 Proj. Engr	Accept.	Proj. Engr. S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	1 gal friction top can			1/2 hr.	DOTD TR 431
	Thickness & Width	302.01 302.05 302.08 Contractor	Quality Control	Contractor	*					*Shall be measured sufficiently to ensure specifications are met.
		302.12 TR 602 Proj. Engr.	Verif.	Proj. Engr. TR 602	1/half day				1/4 hr.	Proj. Engr. To notify Dist. Lab when section is completed.
		302.12 Dist. Lab	Accept.	Dist. Lab TR 602	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder			300 lin ft per location	3 days	See DOTD TR 602. For small quantity, Proj. Engr. documents in field book.
GEOTEXTILE SEPARATOR FABRIC	Class D	203.11 302.04 1019 Mat. Lab	Accept.			SECTION 203 OF	THIS MAN	NUAL.		Only required when aggregate base course placed on un-treated or lime-treated soils.
SOILS (RAW) ON ROADWAY FOR SOIL CEMENT	Density (93%)	302.01 302.05 302.08 Contractor	Quality Control	Contractor TR 401	*					*Shall test sufficient to ensure specifications are met. Minimum density is required on roadway prior to spreading cement. Check M.C. % before mixing with cement (TR 403).
		302.05 Proj. Engr.	Accept.	Proj. Engr. TR 401	1/half day				1/2 hr.	

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SECTION 302 CLASS II BASE COURSE (cont'd)

		REF.	PURP.	SAMPLED	MIN.	MIN. QUANT.	CERT.	SMALL	TYPICAL	
MATER	ΝΔΙ			BY	FREQ.			QUANTITY	HANDLING	REMARKS
I WATER	NAL .	TESTED							TIME	KEMAKKO
		BY		METHOD		CONTAINER	DISTR.			
SOILS (RAW)	Soils/Soil-	302.05	Design*	Proj. Engr.	1/1000 lin ft/	6 full sample			21 days	*For cement content and moisture-
	Aggregate	Dist. Lab		S 101 or	2-lane rdwy or	sacks of blend				density relationships. Design will be
FOR SOIL				S 401	1/ 2000 lin ft/					conducted on blend.
CEMENT					shoulder					
(Cont'd)		302.02	Accept.	Proj. Engr.	1/1000 lin ft/	1 full sample sack		200 lin ft	5 days	Blending of soils prior to mixing with
1		Dist. Lab	, 1000pti	S 101 or	2-lane rdwy or	of blend & 1		200 10	o aayo	cement will not be allowed for
1		2.01. 242		S 401	1/ 2000 lin ft/	sample sack of				adjustment of LL or PI.
1					shoulder	each component				
1						•				
1		302.02	IA	Dist. Lab		SEE	INDEPEN	IDENT ASSUR	ANCE PROGRA	AM S 701.
1		Dist. Lab		S 101 or						
COIL C (DAVA) IN	Caila/Cail	302.01	O. alita	S 401	*					*Shall test sufficient to ensure
SOILS (RAW) IN STOCKPILE		302.01	Quality Control	Contractor S 101 or						
FOR SOIL	Aggregate	Contractor	Control	S 101 01 S 401						specifications will be met when placed on roadway. Check M.C. % before
CEMENT		Contractor		3 401						spreading cement.
OLIVILIVI										opreduing cernent.
1		302.05	Design*	Proj. Engr.	1/1000 yd ³	6 full sample			21 days	*For cement content and moisture-
1		Dist. Lab		S 101 or		sacks of blend &				density relationships. Design will be
1				S 401		1 full sample sack				conducted on blend.
1						of each				
1		302.02	Accept.	Proj. Engr.	4/4000 13	component 1 full sample sack		40013	5 days	Blending of soils prior to mixing with
1		Dist. Lab	Ассері.	S 101 or	1/1000yd ³	of blend & 1 full		100 yd ³	3 days	cement will not be allowed for
1		Dist. Lab		S 401		sample sack of				adjustment of LL or PI.
1				0 401		each component				adjustment of EE of 1 1.
1						oddii ddiipondiic				
1		302.02	IA	Dist. Lab		SEE	INDEPEN	IDENT ASSUR	ANCE PROGRA	AM S 701.
		Dist. Lab		S 101 or S 401						
		1018.01	Accept.	Proj. Engr.	1/source*	1 qt plastic bottle			21 days	*Drinkable water need not be sampled.
Water		Mat. Lab		S 303						

SECTION 303 IN-PLACE CEMENT STABILIZED BASE COURSE

MATER		REF. TESTED	PURP.	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
			,							MEMBRANE, REFER TO SECTION 506 THIS MANUAL, AS APPLICABLE.
TO SPREADING CEMENT (Existing or	Furnished Soil	303.07 Contractor	Quality Control	Contractor S 101 or S 401						Must test sufficient to ensure material will meet specification requirements before placing on roadway. Check M.C.% on all materials before spreading cement.
Furnished Soils/Soil- Aggregate)		303.02 Dist. Lab	Accept.	Proj. Engr. S 101 or S 401	1/1000 yd ³	1 full sample sack			4 days	Contractor furnished material will be approved before incorporation into existing material. Furnished material not meeting the requirement of specification Subsection 302.02(a) will not be incorporated in the base.
	Density (93%)	303.04 303.07 Contractor	Quality Control	Contractor TR 401	*					*Shall be tested frequently enough to ensure specifications are met. Minimum density is required on roadway prior to mixture with cement. All blending of soils materials will be accomplished before testing.
		303.04 Proj. Engr	Accept.	Proj. Engr. TR 401	1/half day				30 min.	
	In-Place Material on Roadway	303.04 303.05 Dist. Lab	Design*/ Accept.	Contractor S101 or S401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	6 full sample sacks			14 days	*For cement content and moisture- density relationships (if needed). Design will be conducted on the final blend.
	Pulverization	303.04 303.07 Contractor	Quality Control	Contractor TR 401	*					*Shall be tested frequently enough to ensure specifications are met.
		303.04 303.11 Proj. Engr.	Accept.	Proj. Engr. TR 431	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder				1/2 hr.	Shall be obtained after blending of any contractor furnished material. Pulverization shall be approved prior to spreading cement.

SECTION 303 IN-PLACE CEMENT STABILIZED BASE COURSE (Cont'd)

MATER	DIAL	REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING	REMARKS
		TESTED BY		METHOD		CONTAINER	DISTR.		TIME	
										MEMBRANE, REFER TO SECTION 506
OF THIS MANUA	AL. FOR DETAI	LS ON ASPH	ALTIC CON	CRETE OR PC	DRILAND CEM	ENI CONCRETE,	KEFEK I	O SECTIONS 5	01,501 AND 90	1 OF THIS MANUAL, AS APPLICABLE
MANYTHINE WHITH	lo	000.07	0 111	0 1 1 1	I b - t	**	1	T		ItThe control to a ball data and a the
MIXTURE WITH CEMENT ON ROADWAY	Spread Rate	303.07 Contractor	Quality Control	Contractor* TR 436	each transport					*The contractor shall determine the length of spread prior to mixing. **Use an approved sampling device.
		303.11 Proj. Engr.	Accept.	Proj. Engr.* TR 436	1/day	**			1/2 hr.	*The Proj. Engr. will verify the length of spread prior to mixing. **Use an approved sampling device.
	Cross Slope & Grade	303.07 Contractor	Quality Control	Contractor	*					*Shall test sufficient to ensure specifications are met. Use an approved 10 ft metal static straightedge.
		303.07 Proj. Engr.	Verif.	Proj. Engr.	*				1/4 hr.	Use an approved 10 ft. metal static straightedge or other approved device.
	Density	303.07 Contractor	Quality Control	Contractor TR 401	*					*Shall test sufficient to ensure specifications are met.
		303.11 Proj. Engr.	Accept.	Proj. Engr. TR 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder				1/2 hr.	
		303.11 Dist. Lab	IA	Dist. Lab TR 401	Silodiaci	SEE	INDEPE	NDENT ASSUR	ANCE PROGRA	AM S 701.
	Moisture Content	303.05 303.07 Contractor	Quality Control	Contractor S 101 or S 401	*					*Shall test sufficient to ensure specifications are met. (DOTD TR 403)
		303.05 303.11 Proj. Engr.	Accept.	Proj. Engr. S 101 or S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	1 gal friction top can*			1 hr.	*May be obtained by M.C.% determined during application of TR 415 B, if available on in-place moisture at the time of compaction (TR 403).
	Thickness & Width	303.07 Contractor	Quality Control	Contractor	*					*Shall be measured sufficiently to ensure specifications are met.
		303.11 TR 602 Proj. Engr.	Verif.	Proj. Engr. TR 602	1/half day				1/4 day	Proj. Engr. shall notify Dist. Lab when section is complete.
		303.11 Dist. Lab	Accept.	Dist. Lab TR 602	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder*			300 lin ft per location	3 days	*See DOTD TR 602. For small quantity, Proj. Engr. documents in field book.

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SECTION 304 LIME TREATMENT

MATE	RIAI	REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING	REMARKS
		TESTED BY		METHOD		CONTAINER	DISTR.		TIME	
										MEMBRANE, REFER TO SECTION 506
OF THIS MANU	AL. FOR DETA	ILS ON ASPH	ALTIC CON	CRETE OR PC	ORTLAND CEMI	ENT CONCRETE,	REFER TO	O SECTIONS 5	02 AND 901 OF	THIS MANUAL, AS APPLICABLE.
CURING	Type B (only)	304.05					SEE S	ECTION 506 O	F THIS MANUA	AL.
MEMBRANE		1002.01								
		Mat. Lab/								
		Proi. Engr.	- ·		47 .		1	1	Г	I
LIME		304.02	Prelim.	Mfr.	1/quarter					
(Hydrated and		1018.03	Source	S 102						
Quicklime)		Mat. Lab 304.02	Approval Accept.		1/shipment		CD			(QPL 34)
		1018.03	Ассері.		1/SHIPHIEHL		1 & 7			(QFL 34)
		Mat. Lab					1 4 7			
		304.02	Verif.	Proj. Engr.	1/projet/	1 gal friction top			21 days	(QPL 34)
		1018.03		S 102	source	can			, .	*Not required if sampled under another
		Mat. Lab								item.
MIXTURE ON	Density-	304.08	Quality	Contractor	*					*Shall Check sufficient to ensure
ROADWAY	(Type B)	Contractor	Control	TR 401						specifications are met.
		304.07	Accept.	Proj. Engr.	1/1000 lin ft/				30 min	
		Proj. Engr.		TR 401	2-lane rdwy or					
		, 0			1/2000 lin ft/					
					shoulder					
		304.07	IA	Dist. Lab		SEE	INDEPEN	NDENT ASSUR	ANCE PROGR	AM S 701.
	D	Dist. Lab	A 1	TR 401			ı	1		O
	Density- (Type C & D)	304.07 Proi. Engr.	Accept.	Proj. Engr.						Compact to the satisfaction of the Engineer.
	Density-	304.07	Accept.	Proj. Engr.			l .	1		
	(Type E)	Proj. Engr.	71000pt.	r roj. Erigi.			SEE S	ECTION 203 O	F THIS MANUA	AL.
	Lime Spread	304.08	Quality	Contractor*	Each transport	**			30 min.	*The contractor shall determine the
	Rate	Contractor	Control	TR 436						length of spread.
										**Use an approved sampling device
		304.05	Accept.	Proj. Engr.*	1/1000 lin ft/	**			30 min.	*The Proj. Engr. shall verify the length
		Proj. Engr.	1	TR 436	2-lane rdwy or					of spread.
		, ,			1/2000 lin ft/					**Use an approved sampling device.
					shoulder					

SECTION 304 LIME TREATMENT (Cont'd)

MATE	RIAL	REF. TESTED BY	PURP.	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
MIXTURE ON ROADWAY (Cont'd)	Pulverization (Type B & C)	304.08 Contractor	Quality Control	Contractor S 101	*					*Shall Check sufficient to ensure specifications are met.
		304.06 Proj. Engr.	Accept.	Proj. Engr. S 101	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	1 gal friction top can			1/2 hr.	
	Pulverization (Type D & E)	304.06	Accept.	Proj. Engr		*				*Satisfaction of Engineer.
	Thickness & Width (Type B)	304.08 Contractor	Quality Control	Contractor	*					*Shall Check sufficient to ensure specifications are met.
	(Туре В)	304.05 Proj. Engr	Verif.	Proj. Engr. TR 602	1/half day				1/4 hr.	Proj. Engr. to notify Dist. Lab when section is complete.
		304.11 Dist. Lab	Accept.	Dist. Lab TR 602	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder			300 lin ft per location	3 days	See DOTD TR 602. For small quantity, Proj. Engr. Documents in field book.
	Thickness & Width (Type C & D)	304.05 Proj. Engr.	Accept.	Proj. Engr. TR 602*	*					*Satisfaction of the Project Engr. Documents in field book.
	Thickness & Width (Type E)	304.05 Proj. Engr.	Accept.		FOR L	IFT THICKNESS F	REQUIRE	MENTS SEE SE	CTION 203 OF	THIS MANUAL.
SOIL OR SOIL- AGGREGATE	% Lime*	304.04 304.05 Dist. Lab	Design	Proj. Engr. S 101 or S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder*	6 full sample sacks			10 days	*Not required when percent lime is specified in plans or project specifications.
Water		304.02 1018.01 Mat Lab	Accept.	Proj. Engr. S 303	1/source*	1 qt plastic bottle			21 days	*Drinkable water need not be sampled.

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SECTION 305 SUBGRADE LAYER

MATERIAL		REF. TESTED	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS				
		BY		METHOD		CONTAINER	DISTR.		TIME					
NOTE: WHEN A CONSTRUCTION						SE THE SAMPLIN	G SCHED	OULES IN SECT	TION 301 OF T	HIS MANUAL. FOR PLACEMENT AND				
	Stone,	305.02	SECTIONS C	F IHIS MANU	AL	SEE SEC	TION 302	OF THIS MAN	UAL					
	Recycled PC	305.04												
	Concrete, Crushed Slag	Dist. Lab												
	Asphaltic	203.09	Prelim.	Dist. Lab	1/source/	6 sacks			4 weeks	Source shall be approved by Materials				
	Concrete	1007.09	Source	S 101	blend					Lab prior to use.				
	D	Mat Lab	Approval	0	*									
	Blended Calcium	1003.01 1003.10	Quality Control	Contractor S 101	*					*Must test sufficient to ensure materials				
	Calcium Sulfate	Contractor	Control	5 101						being delivered meet specification requirements.				
	Canalo	1003.01	Design*	Proj. Engr.	1/source	6 full sample			4 days	*For moisture-density relationships.				
		1003.10	Doolgii	S 101	17000100	sacks			1 days	r or molecure deficitly relationerispe.				
		Dist. Lab												
		305.04	Accept.*	Proj. Engr.	1/1000 yd ³	1 full sample sack		100 yd ³	4 days	*Shall not be placed within 10 ft of				
		1003.01 1003.10		S 101						metal pipe. Shall be from an approved source.				
CEMENT						SEE SECTION 3	02 OF TH	IS MANUAL.						
ASPHALTIC MATERIALS	Curing Membrane		SEE SECTION 506 OF THIS MANUAL.											
	Prime Coat	SEE SECTION 505 OF THIS MANUAL.												
GEOTEXTILE FABRIC		305.02 1018.19				SEE SEC	TION 203	OF THIS MAN	UAL					
LIME (Hydrated or Quicklime)						SEE SECTION 3	04 OF TH	IS MANUAL.						
,					T	Г		T	T	I.=				
MIXTURE WITH LIME AND/OR	Pulverization*	305.04	Accept.	Proj. Engr. S 401	1/1000 lin ft/				1/2 hr.	*For soil after mixing with cement and/or lime.				
CEMENT ON		Proj. Engr.		5 401	2-lane rdwy or 1/2000					and/or lime.				
ROADWAY					lin ft/shoulder									
SOIL		305.04	Design*	Proj. Engr.	1/1000 lin ft/	6 full sample			10 days	*For Moisture Density relationships.				
		Dist. Lab.	-	S 401	2-lane rdwy or	sacks								
					1/2000									
		305.04	Accept.*	Proj. Engr.	lin ft/shoulder 1/1000 lin ft/	1 full sample sack			4 days	*When soils are to be blended, each				
		Dist. Lab	Accept.	TR 602	2-lane rdwy or	i iuii sairipie sack			- days	component must meet specifications				
		3.0 2.00			1/2000					before blending. Design and final				
					lin ft/shoulder					acceptance will be conducted on the blend.				

SECTION 305 SUBGRADE LAYER (Cont'd)

MATERIAL		REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING	REMARKS
WATE	NIAL	TESTED BY		METHOD		CONTAINER	DISTR.		TIME	REWARKS
SUBGRADE LAYER	Density (Stone Recycled PCC, Soil Cement, Crushed Slag)				SEI	E SECTIONS 302 A	AND 308 C	OF THIS MANU	AL	
	Density (Blended Calcium	305.01 Contractor	Quality Control	Contractor S 401	*					*Shall check sufficiently to ensure specifications requirements.
	Sulfate)	305.04 Dist. Lab	Accept.	Proj. Engr. S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder				1/2 hr.	Shall not be placed within 10 ft of metal pipe. Shall be from an approved source.
	Thickness & Width	305.04	Verif.	Proj. Engr. TR 602			his Manua	al as applicable	. District Lab	not required to perform DOTD TR 602
WATER		305.02 1018.01 Mat. Lab	Accept.	Proj. Engr. S 303	1/source	1 qt plastic bottle			21 days	Drinkable water need not be sampled.

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SECTION 306 SCARIFYING & COMPACTING ROADBED

MATERIAL		REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING	REMARKS
		TESTED							TIME	REWARKS
		BY		METHOD		CONTAINER	DISTR.			
EXISTING	Density	306.02	Accept.	Proj. Engr.	1/1000 lin ft/				1/2 hr.	
MATERIAL		Proj. Engr		TR 401,	2-lane rdwy or					
				TR 415 or	1/2000 lin ft/					
				TR 418	shoulder					
ASPHALTIC MATERIAL	Prime Coat	306.02	SEE SECTION 506 TO THIS MANUAL.							

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SECTION 307 PERMEABLE BASES

MATER	IAI	REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING	REMARKS
MATER	IAL	TESTED BY		METHOD		CONTAINER	DISTR.		TIME	REMARKS
AGGREGATE	Stone	307.02 1003.06 Dist. Lab	Accept.	Proj. Engr. S 101	1/1000yd3	1 full sample sack			4 days	(QPL 2)
	Asphalt Cement	307.02	Prelim. Source Approval, Accept., Verif.		SEE	(QPL 41)				
ANTI-STRIP		307.02 1002.02	Prelim. Source Approval, Accept. Verif.		SEE	(QPL 57)				
ADMIXTURE		307.02 1011.02	Prelim. Source Approval, Accept., Verif.		SEE		(QPL 58)			
CEMENT (HYDRAULIC)		307.02 1001	Prelim. Source Approval, Accept., Verif		SEE	(QPL 7)				
CURING COMPOUND		307.03 601.10 1011.01	Prelim. Source Approval, Accept.		SEE	SECTION 601 OF	THIS MAI	NUAL		(QPL 65)
PERMEABLE ASPHALT BASE (PLANT)	JMF	307.02 Contractor	Design*		1/mix/plant					*Contractor shall submit to the Dist. Lab Engr. The proposed job mix formula with supporting design data. Approval is required prior to starting work.
		307.02 Dist. Lab	Verif.*	Proj. Engr. S101, S201, S601	1/JMF					*Dist. Lab verifies % retained coating in accordance with TR 317.
	Anti-Strip Additive %	307.02 Proj. Engr.	Accept.	Proj. Engr. S 605	1/2500 tons	*				*% AS from meter.
	Asphalt Cement	307.02 Proj. Engr.	Accept.	Proj. Engr. S 605	1/2500 tons	*				*% AC from meter.

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SECTION 307 PERMEABLE BASES

		REF.	PURP.	SAMPLED	MIN.	MIN. QUANT.	CERT.	SMALL	TYPICAL	
MATER	141		. •	BY	FREQ.		-	QUANTITY	HANDLING	REMARKS
MATER	MATERIAL								TIME	REMARKS
		BY		METHOD		CONTAINER	DISTR.			
	Loose Mixture	307.02	Quality	Contractor	1/1000 tons	suitable sampling				
ASPHALT BASE (PLANT)	(Gradation, % AC, & %	Contractor	Control	S 203 & S 605		bucket				
(Cond't)	Crushed	307.02 Dist. Lab	Verif.	Proj. Engr. S 203	1/5000 tons	1 gal friction top can			3 days	
PERMEABLE CONCRETE BASE (PLANT)	Mix Design	307.02 Contractor/ Dist. Lab	Design/ Accept.	*	1/mix/plant				3 days	*Contractor shall submit to the Dist. Lab Engr. the proposed job mix formula with supporting data. Approval is required prior to starting work.
		307.02 Proj. Engr.	Verif.	*	1/truck					*Obtain "batch tickets" to verify quantities from mix design.
	Cross Slope & Grade	307.05 Contractor	Quality Control	Contractor	*					*Under thickness shall not exceed 1/2" (12 mm).
		307.05 Proj. Engr.	Accept.	Proj. Engr.*	1/day					*Use 10 ft metal static straight edge or approved device.
	Thickness & Width	307.01 Contractor	Quality Control	Contractor	*					*Shall measure sufficiently to ensure specifications are met.
		307.06 Proj. Engr.	Accept.	Contractor/ Proj. Engr. TR602	1/2000 lin ft					Under thickness shall not exceed 1/2" (12 mm).
	Temperature	307.03 Proj. Engr.	Accept.*	Proj. Engr. S 605	1/5000 tons					*Required for Asphaltic Concrete only.
WATER		1018.01	Accept.	Proj. Engr. S 303	1/source*	1 qt plastic bottle			21 days	*Drinkable water need not be sampled.

MATER	PIAI	REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING	REMARKS
MATER	VIAL	TESTED BY		METHOD		CONTAINER	DISTR.		TIME	KLWAKKO
				REFER TO SE		THIS MANUAL. FO	OR DETAI			MEMBRANE, REFER TO SECTION 506 THIS MANUAL, AS APPLICABLE.
MATERIAL FOR BASE PRIOR TO SPREADING CEMENT (Existing or	Furnished Soil	308.07 Contractor	Quality Control	Contractor S 101 or S 401						Must test sufficient to ensure material will meet specification requirements before placing on roadway. Check M.C.% on all materials before spreading cement.
Furnished Soils/Soil- Aggregate)		308.02 303.04 Dist. Lab	Accept.	Proj. Engr. S 101 or S 401	1/1000 yd ³	1 full sample sack			4 days	Contractor furnished material will be approved before incorporation into existing material. Furnished material not meeting the requirement of specification Subsection 302.02(a) will not be incorporated in the base. If A-4 or A-6 soil group is used, the blend shall meet the durability requirements of DOTD TR 432, Method D.
	Density (93%)	308.04 307.02 Contractor	Quality Control	Contractor TR 401	*					*Shall be tested frequently enough to ensure specifications are met. Minimum density is required on roadway prior to mixture with cement. All blending of soils materials will be accomplished before testing. Check M.C. % before mixing with cement (TR 403).
		308.04 Proj. Engr	Accept.	Proj. Engr. TR 401	1/half day				30 min.	
	In-Place Material on Roadway	308.05 Contractor	Design*	Contractor S101 or S401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	6 full sample sacks			21 days	*Only when Portland - Pozzolan or Portland Blast-Furnace Slag, cement is used.
		308.05 Dist. Lab	Verif.	Contractor S101 or S401	1/soil type	6 full sample sacks			21 days	
	Pulverization	308.05 303.07 Contractor	Quality Control	Contractor TR 401	*					*Shall be tested frequently enough to ensure specifications are met.
		308.05 308.11 Proj. Engr.	Accept.	Proj. Engr. TR 431	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder				1/2 hr.	Shall be obtained after blending of any contractor furnished material. Pulverization shall be approved prior to spreading cement.

		REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING			
MATER	RIAL	TESTED							TIME	REMARKS		
FOR DETAILS O	NUVDBALLIC	BY CEMENT AN	D.WATER I	METHOD	CTION 204 OF T	CONTAINER	DISTR.	I C ON ACDUA	LTIC CURING I	L MEMBRANE, REFER TO SECTION 506		
										1 OF THIS MANUAL, AS APPLICABLE		
OF THIS MANUA	C. FOR DETAI	LO ON AOFTI	ALTIC CON	CKLIL OK FC	I LAND CLIVII	LIVI CONCRETE,	KLILK I	O SECTIONS S	01,501 AND 90	TOP THIS MANUAL, AS AFFLICABLE		
	1 - 1			1 -	1 .			1				
MIXTURE WITH		308.05	Quality	Contractor	each transport	*				The contractor shall determine the		
CEMENT ON	Spread Rate	308.07	Control	TR 436						length of spread prior to mixing.		
ROADWAY		Contractor								*Use and approved sampling device.		
		308.11	Accept.	Proj. Engr.	1/day	*			1/2 hr.	The Proj. Engr. will verify the length of		
		Proj. Engr.		TR 436						spread prior to mixing.		
										*Use an approved sampling device.		
	Cross Slope &	308.07	Quality	Contractor	*					*Shall test sufficient to ensure		
	Grade	Contractor	Control							specifications are met.		
	ŀ	308.11	Accept.	Proj. Engr.	1/half day				1/4 hr.	Use an approved 10 ft. metal static		
		Proj. Engr.	, 1000pti		irrian day				.,	straightedge or other approved device.		
										and gride go or outer approved across		
	Density	308.07	Quality	Contractor	*					*Shall test sufficient to ensure		
	,	Contractor	Control	TR 401						specifications are met.		
		308.11	At	Desi Fees	1/1000 lin ft/				4/0 h =			
		308.11 Proj. Engr.	Accept.	Proj. Engr. TR 401	1/1000 lin π/ 2-lane rdwy or				1/2 hr.			
		Proj. Engr.		1 K 401	1/2000 lin ft/							
					shoulder							
		303.11	IA	Dist. Lab	Silodidei	SEE	INDEPE	NDENT ASSUR	ANCE PROGRA	AM S 701.		
		Dist. Lab		TR 401								
	Moisture	308.05	Quality	Contractor	*					*Shall test sufficient to ensure		
	Content	303.07	Control	S 101 or						specifications are met. (DOTD TR 403)		
		Contractor		S 401								
		303.05	Accept.	Proj. Engr.	1/half day	1 gal friction top			1 hr.	*May be obtained by M.C.%		
		308.11		S 101 or		can*				determined during application of TR		
		Proj. Engr.		S 401						415 B, if available on in-place moisture		
										at the time of compaction (TR 403).		
	Thickness &	308.07	Quality	Contractor	*					*Shall be measured sufficiently to		
	Width	Contractor	Control							ensure specifications are met.		
		308.11	Verif.	Proj. Engr.	1/half day				1/4 day	Proj. Engr. shall notify Dist. Lab when		
		TR 602		TR 602						section is complete.		
		Proj. Engr.										
		308.11	Accept.	Dist. Lab	1/1000 lin ft/			300 lin ft per	3 days	See DOTD TR 602. For small		
		Dist. Lab		TR 602	2-lane rdwy or			location		quantity, Proj. Engr. documents in field		
					1/2000 lin ft/					book.		
					shoulder			1				